ical projects presented are also disconcerting, since in most cases, the results of small pilot studies, single samples, one instance, a set of readings, or incomplete information are presented in graphic or tabular form as substantial data, where it can only be misleading to the novice and distasteful to the professional.

Several academic questions are pursued, such as the community concept, zonation, the individualistic hypothesis, climax concept, and the like, which can only cloud the minds of the general reader attempting to learn about Bodega biology, while contributing nothing new to the thinking of professional biologists.

Discussions and topics that I looked forward to were often neglected or deficient. An interesting Indian history of Bodega Head (Chapter 7), and all the details of planning an atomic power plant at Bodega Bay are presented, while neglecting to develop a meaningful vegetational history, which I believe to be more pertinent to the understanding of present-day Bodega Head. I was disappointed that the questions of why Bodega Head is treeless, how long coastal grasslands might have been in existence, how coastal grasslands might have been formed and what factors contributed to their maintenance, and the possible relationships between the geomorphology and fault zone to soils, seepage, drainage, and vegetation were not discussed.

The role of salinity in controlling the germination of coastal plants, already, capably described in several publications by author Barbour, is emphasized to the point of neglecting other important aspects of coastal ecology, including wave action, sand transport, dune formation, dune-building plants, and the life cycle and ecological roles of the strand and salt marsh. What effects has the introduction of the nonnative beachgrass had on Pacific Coast dunes, what native plants have been excluded, and how has this affected dune dynamics?

Along with the expected misspellings of Latin names, misuse of terms (I believe coastal strand should include the lower, middle, and upper beach, including the dunes), and misrepresentations of facts (common and snowy egrets may eat similar foods, but certainly procure them in different ways), many ecological features were neglected such as the role of runoff in removing salts, the effects of fresh-water seepage on beach plants, the ameliorating effects of marine air, and the reproductive habits of various plants and animals (sea rocket fruits are produced in pairs, with one abscising and the other persisting, thereby helping to explain why most seedlings are found near parent plants).

The various appendixes, and the literature cited section, are of use to both amateur and expert. The reader will encounter interesting ideas and facts, but I am afraid the book generally represents a premature venture as a comprehensive treatise of coastal ecology or of Bodega Head.—Richard J. Vogl, Department of Biology, California State University, Los Angeles 90032.

Flora of the Pacific Northwest: An illustrated manual. By C. Leo Hitchcock and Arthur Cronquist. Illustrated by Jeanne R. Janish. xix + 730 pp. University of Washington Press, Seattle. 1973. $19.50 (text), $25.00 (trade).

This manual, a direct outgrowth of the five-volume *Vascular plants of the Pacific Northwest,* has been most welcomed by both professional and amateur botanists of the Pacific Northwest. At last we have a reasonably sized, illustrated compendium of the plants of this area. The illustrations unfortunately have been greatly reduced from those found in larger work; however, they do provide an accurate visual guide for the enthusiastic plant identifier. Many new sketches have been provided for the keys, and even more would be desirable but I am sure that overall size of the manual precluded their inclusion. The presence of the illustrated keys provides for the first time in North America an excellent model for presentation in major floristic works. This unique feature will entice many more people to learn about our vascular plant resources. One problem the user has with the illustrations concerns the man-

ner in which they are related to the key leads rather than the species number. Perhaps a more distinctive separation of key lead numbers and species numbers should have been devised. One has the feeling that the illustrations are trying to serve two purposes and this leads to some confusion by the user.

The preliminaries contain a short introduction, a list of abbreviations and signs used, and a glossary. A separate list of abbreviations and signs is provided, but I have long since lost mine during field work. It is too bad that this list could not have been printed on the end papers. The glossary is adequate; however, I prefer it with back matter.

We have had the opportunity to use the manual both as a class text and as a research field tool during the past year and have found it to be most satisfactory. The keys obviously reflect the intimate experience that both authors have had with the plants in the field. Perhaps the most difficult aspect for the beginner, the terminology, is made more difficult by the need to abbreviate.

There have been some taxonomic changes and modifications from the previous five-volume work. New combinations are indicated in the index. Some changes are made without comment, e.g., reversal of *Antennaria microphylla* Rydb. and *A. rosea* Greene; *Sparganium emersum* Rehmann for *S. simplex;* the dropping of the B author of an A ex B authority that was used in the five-volume work, a procedure contrary to recommendations of the Code, e.g., *Picea engelmannii* Parry ex Engelm. and *Epipactis gigantea* Dougl. ex Hook. Three of the ten "new combinations" were made earlier by Boivin. It is hoped that the authors will publish a short paper bringing together the changes and providing their reasons for doing so.

I concur with the discussion provided by the authors regarding common names and support in particular the position taken by Hitchcock. I would, however, find it difficult to provide common names for species of *Carex* and wonder if it is not more confusing than clarifying.

Mention should be made of the printing of two text editions, namely, a trade edition with an elegant jacket (and a good picture of both authors!) that sells for over five dollars more than the text edition. I fail to see why the publishers have gone to the trouble of producing two different editions. Once again, as was the case with the previous five-volume work, the manual (text) is not well-bound. My edition is now in need of binding after a normal year's use in the laboratory and field. The University of Washington Press should be chastized for the sloppy way they have produced what is certainly one of North America's best conceived floristic works. I would hope in the future that the quality of the production would more nearly approach the scholarly content contained in the texts produced by Hitchcock and Cronquist.—Roy L. Taylor, Botanical Garden, University of British Columbia, Vancouver, Canada V6T 1W5.

A flora of the Tahoe Basin and neighboring areas. By Gladys L. Smith. 231 pp., 29 ill., 4 maps. Published by University of San Francisco in *The Wasmann Journal of Biology,* vol. 31, spring, 1973. Reprints with paper cover available from author: 730 - 28th Ave., San Francisco, CA 94121. $5.85 (including postage and tax).

This flora is the culmination of 13 years of field and herbarium studies carried out by the author between 1959 and 1972. The flora covers an area of about 673 km^2 (260 mi^2) in the Sierra Nevada within parts of six counties in the vicinity of Lake Tahoe on the California-Nevada border. Elevations in the area range from 1,926 m (6,320 ft) at Lake Tahoe to 3,317 m (10,881 ft) at Jobs Sister Peak. Aquatic vascular plants from Lake Tahoe itself are also included. In all, 1,161 taxa representing 903 species and 258 infraspecific taxa, distributed in 307 genera and 77 families, are treated.